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§ 151.04–3 Initial inspection.

(a) The initial inspection which may consist of a series of inspections during the construction of an unmanned barge shall include a complete inspection of the structure, auxiliary machinery, and equipment. The inspection shall be such as to insure that the arrangement, materials, and scantlings of the hull structure, tanks and pressure vessels and their appurtenances comply with applicable regulations of this chapter and with the requirements of this part.

(b) [Reserved]

§ 151.04–5 Inspection for certification.

(a) An inspection for certification is a prerequisite of the reissuance of a Certificate of Inspection as provided for in applicable regulations of this chapter.

(b) Unless otherwise specified in table 151.05, cargo tanks are internally examined as follows:

(1) Where the cargo tank is of the gravity type and the structural framing is on the internal tank surface, the tank shall be inspected internally at the time of inspection for certification.

(2) Where the cargo tank is of the gravity type and the structural framing is on the external tank surface accessible for examination from voids, cofferdams, double bottoms, and other similar spaces, tanks shall be inspected internally at 4–year intervals.

(3) If the tank is a pressure-vessel type cargo tank, an internal inspection of the tank is conducted within—

(i) Ten years after the last internal inspection on an unmanned barge carrying cargo at temperatures of −67°F (−55°C) or warmer; or

(ii) Eight years after the last internal inspection if the tank is a pressure type cargo tank carrying cargo at temperatures colder than −67°F (−55°C).

(4) Internal inspection may be required at more frequent intervals as deemed necessary by the Officer in Charge, Marine Inspection.

(c) An external examination of unlagged tanks and the visible parts of lagged tanks is made at each biennial inspection. If the vessel has single skin construction, the underwater portion of the tank need not be examined unless deemed necessary by the Officer in Charge, Marine Inspection. If an external examination of the tank is not possible because of insulation, the owner shall ensure that—

(1) The amount of insulation deemed necessary by the marine inspector is removed during each cargo tank internal inspection to allow spot external examination of the tanks and insulation; or

(2) The thickness of the tanks is gauged by a nondestructive means accepted by the marine inspector without the removal of insulation.

(d) If required by the Officer in Charge, Marine Inspection the owner shall conduct nondestructive testing of each tank designated by the Officer in Charge, Marine Inspection in accordance with § 151.04–7.

(e) If the Officer in Charge, Marine Inspection considers a hydrostatic test necessary to determine the condition of the tanks, the owner shall perform the test at a pressure of 1½ times the tank's—

(1) Maximum allowable pressure, as determined by the safety relief valve setting; or

(2) Design pressure, when cargo tanks operate at maximum allowable pressures reduced below the design pressure in order to satisfy special mechanical stress relief requirements.

NOTE: See the ASME Code, Section VIII, Appendix 3 for information on design pressure.

(f) Quick closing valves shall be tested by operating the emergency shutoff system from each operating point at the time of each vessel's inspection for certification.

(g) Excess flow valves shall be inspected at the time of inspection for certification. The Officer in Charge, Marine Inspection, shall satisfy himself that the valve is in working condition by visual inspection, and if this is impossible, by one of the following means:

(1) Removing the valve and bench testing ashore; the valve shall close at or below its rated closing flow.

(2) By any other means acceptable to the Officer in Charge, Marine Inspection, which will demonstrate that the valve is operable.

(h) Pressure vaccum relief valves shall be examined to determine that the operating mechanism is free and capable of activation.

(i) Safety relief valves shall be tested by bench testing or other suitable means. The valves shall relieve and reseat within the design tolerances of the set pressure, or it shall be removed and reset prior to being returned to service. This test shall be conducted at the time of the inspection for certification.

(j) Cargo hose stored on board the vessel which is used in transferring cargoes listed in Table 151.05 shall be inspected every 2 years. This inspection shall consist of a visual examination and a hydrostatic test of 1½ times the maximum pressure to which the hose will be subjected in service. The date of the most recent inspection and the test pressure shall be stenciled or otherwise marked on the hose.

(k) Cargo piping shall be inspected and tested at the same time as the cargo tanks.

(l) If the tank is a pressure vessel type cargo tank with an internal inspection interval of 10 years, and is 30 years old or older, determined from the date it was built, the owner shall conduct nondestructive testing of each tank in accordance with § 151.04–7, during each internal inspection.

[CFGR 70–10, 35 FR 3714, Feb. 25, 1970, as amended by CGD 88–100, 54 FR 40029, Sept. 29, 1989; CGD 85–061, 54 FR 50965, Dec. 11, 1989]

§ 151.04–7 Nondestructive testing.

(a) Before nondestructive testing may be conducted to meet § 151.04–5 (d) and (l), the owner shall submit a proposal to the Officer in Charge, Marine Inspection that includes—

(1) The test methods and procedures to be used all of which must meet section V of the ASME Boiler and Pressure Vessel Code (1986);

(2) Each location on the tank to be tested; and

(3) The test method and procedure to be conducted at each location on the tank.

(b) If the Officer in Charge, Marine Inspection rejects the proposal, the Officer in Charge, Marine Inspection informs the owner of the reasons why the proposal is rejected.

(c) If the Officer in Charge, Marine Inspection accepts the proposal, then the owner shall ensure that—

(1) The proposal is followed; and

(2) Nondestructive testing is performed by personnel meeting ASNT ''Recommended Practice No. SNT–TC–1A (1988), Personnel Qualification and Certification in Nondestructive Testing.''

(d) Within 30 days after completing the nondestructive test, the owner shall submit a written report of the results to the Officer in Charge, Marine Inspection.

[CGD 85–061, 54 FR 50966, Dec. 11, 1989]

Subpart 151.05—Summary of Minimum Requirements for Specific Cargoes

§ 151.05–1 Explanation of column headings in Table 151.05.

(a) *Cargo identification/name.* This column identifies cargoes by name. Words in italics are not part of the cargo name but may be used in addition to the cargo name. When one entry references another entry by use of the word ''see'' and both names are in roman type, either name may be used as the cargo name (e.g., ''Diethyl ether *see* Ethyl ether''). However, the referenced entry is preferred.

(b) *Cargo identification/pressure.* This column identifies cargo in terms of pressure within the tank. Terms used are:

(1) *Pressurized.* Cargo carried at a pressure in excess of 10 pounds per square inch gauge as measured at the top of the tank (i.e., exclusive of static head).

(2) *Atmospheric pressure.* Cargo carried at not more than 10 pounds per square inch gauge, exclusive of static head.

(c) *Cargo identification/temperature.* This column identifies the cargo by the temperature of the cargo during transit.

(1) *Ambient temperature.* Cargo which is carried at naturally occurring temperatures.

(2) *Low temperature.* Cargo carried below ambient temperatures when the product temperature is below 0°F.

(3) *Elevated temperature.* Cargo carried above ambient temperatures.